

cyclics), 6.66 grams of 3,3,3-trifluoropropylmethyl cyclotrisiloxane, 1.68 grams of octaphenyl cyclotetrasiloxane, and 0.28 grams (0.34 ml) of an end blocker such as 1,3-divinyltetramethyldisiloxane was added to a 50 mL reaction flask. The resulting reaction mixture was dried at 80° C. under vacuum for thirty minutes and then purged with argon gas. The temperature was raised to 160° C. and about 7 mg of potassium silanoate was added. The catalyst addition accelerated the polymerization rate forming a high molecular weight polymer with increased viscosity. About thirty minutes later this high molecular weight polymer started to become cyclic and its viscosity was decreasing. It was glass clear with no residue at the bottom of the reaction vessel. After approximately two hours the viscosity had increased and the temperature was raised to 160° C.. About three hours later the reaction was terminated by decreasing the temperature to room temperature. The polymer was washed with THF and then precipitated with methanol. After drying, the silicone material was glass clear. The refractive index was 1.4103, the specific gravity was 1.10 and the MW was 15,000. Cross-linking this material yielded a clear silicone gel.

Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in the art that the disclosures herein are exemplary only and that alternatives, adaptations and modifications may be made within the scope of the present invention.

What is claimed is:

1. An injectable silicone lens material, comprising:
a silicone material having a specific gravity that is greater than 1.0 and a refractive index of a natural lens that is polymerized from a plurality of siloxane monomers.
2. The injectable silicone lens material of claim 1 wherein the refractive index ranges between 1.383 and 1.695.
3. The injectable silicone lens material of claim 1 wherein at least one siloxane monomer has a specific gravity greater than 1.0.
4. The injectable silicone lens material of claim 1 wherein the silicone is a terpolymer having a specific gravity of about 1.1 and a refractive index of about 1.41.
5. The injectable silicone lens material of claim 1 wherein the silicone is a copolymer having a specific gravity of about 1.1 and a refractive index of about 1.41.
6. A reaction mixture for making a lens material, comprising:
a plurality of siloxane monomers having a specific gravity ranging from 0.97 to 1.24 wherein the siloxane monomers comprise one or more trimer or tetramer or higher order cyclic siloxane monomers forming a silicone lens material with a specific gravity greater than 1.0.
7. The reaction mixture of claim 6 wherein the plurality of siloxane monomers is copolymerized to make a terpolymer with a refractive index of about 1.41 and a specific gravity of about 1.1.
8. The reaction mixture of claim 6 wherein at least one of the monomers has a specific gravity that is greater than 1.0.

9. The reaction mixture of claim 6 wherein the plurality of siloxane monomers are selected from a group consisting of methyl and substituted methyl siloxanes, phenyl siloxanes and trifluoropropyl methyl siloxane.

10. The reaction mixture of claim 6 wherein the plurality of siloxane monomers consists essentially of hexylmethyl cyclotrisiloxane, 3,3,3-trifluoropropylmethyl cyclotrisiloxane and 1,3,5-trimethyl-1,3,5-triphenyl cyclotrisiloxane.

11. The reaction mixture of claim 6 wherein the plurality of siloxane monomers consists essentially of hexylmethyl cyclotrisiloxane, 3,3,3-trifluoropropylmethyl cyclotrisiloxane and hexylphenyl cyclotrisiloxane.

12. The reaction mixture of claim 6 wherein the plurality of siloxane monomers consists essentially of octamethyl cyclotetrasiloxane and higher order cyclics (dimethylsiloxane cyclics), 3,3,3-trifluoropropylmethyl cyclotrisiloxane and octaphenyl cyclotetrasiloxane.

13. A method of making an injectable silicone lens, comprising:

providing a plurality of siloxane monomers each having a specific gravity within a range of 0.97 to 1.24;

polymerizing the siloxane monomers to form a polymer having a specific gravity greater than 1.0; and

curing by transferring the polymerized siloxane monomers to a capsular sac to make an intraocular implant.

14. The method of claim 13 wherein the polymerized siloxane monomers have a refractive index within a range of 1.383 to 1.695.

15. The method of claim 13 wherein the siloxane monomers are selected from a group consisting of trimers, tetramers and higher cyclic siloxanes.

16. The method of making an injectable silicone lens of claim 13 wherein the plurality of siloxane monomers consists essentially of hexylmethyl cyclotrisiloxane, 3,3,3-trifluoropropylmethyl cyclotrisiloxane and 1,3,5-trimethyl-1,3,5-triphenyl cyclotrisiloxane.

17. The method of making an injectable silicone lens of claim 13 wherein the plurality of siloxane monomers consists essentially of hexylmethyl cyclotrisiloxane, 3,3,3-trifluoropropylmethyl cyclotrisiloxane and hexylphenyl cyclotrisiloxane.

18. The method of making an injectable silicone lens of claim 13 wherein the plurality of siloxane monomers consists essentially of octamethyl cyclotetrasiloxane and higher order cyclics (dimethylsiloxane cyclics), 3,3,3-trifluoropropylmethyl cyclotrisiloxane and octaphenyl cyclotetrasiloxane.

19. An injectable intraocular lens comprising: a silicone terpolymer having a specific gravity greater than 1.0, said lens being cured in situ and having an optically smooth surface and refractive index ranging between 1.383 and 1.695.

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